

REMARKS/ARGUMENTS

Claims 1-20 are pending in the application. The Examiner has rejected claims 1-20. Applicant respectfully requests reconsideration of claims 1-20.

The Examiner states, "Claims 1-19 are rejected under 35 U.S.C. §102(e) as being anticipated by US Patent No. 7,280,542" to Hassan-Ali et al. However, Applicant notes the Examiner alleges teachings as to the subject matter of claims 1-14 and 16-20, but not to claim 15. Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 15. Therefore, Applicant understands the rejection to be directed to claims 1-14 and 16-20 and responds accordingly below. Applicant respectfully disagrees.

Regarding claims 1 and 16, the Examiner alleges "Hassan-Ali discloses an apparatus for multicasting data...." Applicant notes claim 1 recites a "method for multicasting data." Thus, Applicant submits the Examiner has not alleged teaching as to the subject matter of claim 1. As another example, Applicant submits the Examiner has not alleged teaching as to "placing a reference to the data and to a multicast tree into a to-do list," as recited in claim 1. As a further example, Applicant submits the Examiner has not alleged teaching as to "for each of the leaves of the multicast tree, obtaining a data element pointer and a leaf to be processed pointer from the to-do list," as recited in claim 1. As yet another example, Applicant submits the Examiner has not alleged teaching as to "scheduling the data to be output to each of the leaves of the multicast tree based on the data element pointer and the leaf to be processed pointer," as recited in claim 1. Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 1. Thus, Applicant submits the Examiner has not shown the subject matter of claim 1 to be anticipated by the cited reference.

Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 16. As an example, Applicant submits the cited portions of the cited reference fail to disclose "a memory subsystem for storing the data, queue context information pertaining to a root connection, data context information pertaining to the data, a data element pointer, and a leaf to be processed pointer." While the Examiner cites "(see Figs. 3 and 4, elements 322, 332, 334, 336, 352, and 354, col. 8, lines 19-52, and col. 9, lines 12-41)," Applicant sees no teaching of, for example, "for storing the data" or "a leaf to be processed pointer" with respect to "elements 322, 332, 334, 336, 352, and 354," as the

description of such "elements" appears not to teach such subject matter. Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 16. Thus, Applicant submits claims 1 and 16 are in condition for allowance.

Regarding claim 17, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 17. As an example, Applicant submits the cited portions of the cited reference fail to disclose "a data memory for storing the data." While the Examiner cites "element 332" and "col. 8, lines 25-26," Applicant notes "col. 8, lines 25-26" states "A cell arrival interface 348 associated with the CMM block 332 operates as the entry point for incoming cells." Thus, Applicant submits the cited portions of the cited reference fail to disclose "a data memory for storing the data." Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 17. Thus, Applicant submits claim 17 is in condition for allowance.

Regarding claim 18, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 18. As an example, Applicant submits the cited portions of the cited reference fail to disclose "a copy count for counting events of transmitting the data." While the Examiner cites "(see Fig. 3, col. 10, lines 18-19)," Applicant notes "col. 10, lines 18-19" states, "The CMM is preferably operable to update the per-flow cell arrival count." Thus, Applicant submits the cited portion of the cited reference fails to disclose "a copy count for counting events of transmitting the data."

As another example, Applicant submits the cited portions of the cited reference fail to disclose "a next data element pointer for indicating a next data element of the data to be processed." While the Examiner cites "(see Figs. 3 and 5, col. 11, lines 42-57)," Applicant notes col. 11, lines 52-55, merely states, "When a particular leaf flow becomes eligible for scheduling (e.g., based on its LB parameters such as TS), a copy of the head root cell is obtained for emission and the winning flow's leaf index is updated." Therefore, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 18. Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 18. Thus, Applicant submits claim 18 is in condition for allowance.

Regarding claim 19, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 19. As an example, Applicant submits the cited portions of the cited reference fail to disclose "a head pointer" and "a tail pointer." While the Examiner cites "(see Fig. 5,

col. 11, lines 22-23)," Applicant notes such portion states, "The memory embodiment 500 is comprised of a head/tail memory 502, a pointer memory 504...." Thus, Applicant submits the "head/tail memory 502" and the "pointer memory 504" are disclosed as apparently different elements with apparently different functions. Accordingly, Applicant submits the cited portion of the cited reference fails to disclose "a head pointer" and "a tail pointer."

As another example, Applicant submit the cited portion of the cited reference fails to disclose "a root pointer." While the Examiner cites "(see Fig. 5, col. 11, lines 38-41)," Applicant notes the cites portion states "Likewise, the root index is referenced to a pointer location operating as the root cell write pointer, and may therefore be deemed as the 'tail' of the MC queue to which cells get added as they arrive in the ATM switch environment." Applicant submits the "may therefore be deemed as the 'tail'" teaching prevents the cited portion of the cited reference from disclosing "a root pointer" within the context of the subject matter recited in claim 19. Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 19. Thus, Applicant submits claim 19 is in condition for allowance.

Regarding claim 20, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 20. As an example, Applicant submits the cited portions of the cited reference fail to disclose "a leaf count for counting destination queues to which the data shall be transmitted." While the Examiner cites "(see Figs. 4 and 5, col. 9, lines 28-34, and col. 10, lines 43-45)," Applicant notes "col. 9, lines 28-34" merely states "Likewise, reference numerals 408-1 through 408-N refer to the N leaf flows associated with the corresponding number of egress interfaces (i.e., leaves). As will be described in greater detail below, each leaf flow will be initialized with an index pointer to pointer memory that implements a circular linked list of pointers for effecting the multicast functionality of the present invention." Applicant further notes "col. 10, lines 43-45" merely states, "The CMM block is operable to update the per-flow cell emission count, as the cells are scheduled for emission upon winning arbitration." Therefore, Applicant submits the cited portions of the cited references fail to disclose "a leaf count for counting destination queues to which the data shall be transmitted." Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 20. Thus, Applicant submits claim 20 is in condition for allowance.

Regarding claim 2, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 2. As an example, Applicant submits the cited portions of the cited

reference fail to disclose "updating the leaf to be processed pointer in the to-do list for each instance of scheduling the data to be output to each of the leaves." While the Examiner cites "(see Fig. 4, col. 10, lines 62-65)," Applicant notes such portion states "Upon emission of a cell's copy, the leaf index value and leaf sequence are updated as follows. When a leaf index equals the MC queue depth, the leaf has reached the end of the MC queue and, therefore, it needs to rollover." Applicant submits the "updated as follows" language appears to rely on the subsequent sentence for any actual teaching, yet the subsequent sentence merely describes a "rollover" situation, not the subject matter of claim 2. Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 2. Thus, Applicant submits claim 2 is in condition for allowance.

Regarding claim 3, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 3. As an example, Applicant submits the cited portions of the cited reference fail to disclose "setting a copy count to an initial value." While the Examiner cites "(see Fig. 4, col. 10, lines 62-65)," Applicant notes such portion states "Upon emission of a cell's copy, the leaf index value and leaf sequence are updated as follows. When a leaf index equals the MC queue depth, the leaf has reached the end of the MC queue and, therefore, it needs to rollover." Applicant submits the "updated as follows" language teaches away from "setting a copy count to an initial value." Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 3. Thus, Applicant submits claim 3 is in condition for allowance.

Regarding claim 4, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 4. As an example, Applicant notes the Examiner does not appear to cite any portions of the cited reference as allegedly disclosing "setting the copy count to a maximum value initially." Thus, Applicant submits no *prima facie* showing of anticipation has been established. Moreover, Applicant has presented argument as to lack of teaching as to "setting a copy count to an initial value" with respect to claim 3, from which claim 4 depends. Thus, Applicant submits claim 4 is in condition for allowance.

Regarding claim 5, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 5. As an example, Applicant submits the cited portions of the cited reference fail to disclose "wherein the step of adjusting the copy count is performed in response to the step of scheduling the data to be output to each of the leaves of the multicast tree." While the Examiner cites "(see Fig. 4, col. 10, lines 65-67, and col. 11, lines 1-21)," Applicant submits the cited portions of the cited reference fail to disclose "wherein the step of adjusting the copy count is

performed in response to the step of scheduling the data to be output to each of the leaves of the multicast tree" or even "...in response to the step of scheduling the data to be output to each of the leaves of the multicast tree." Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 5. Thus, Applicant submits claim 5 is in condition for allowance.

Regarding claim 6, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 6. As an example, Applicant submits the cited portions of the cited reference fail to disclose "counting every one of the leaves of the multicast tree." While the Examiner cites (see Fig. 4, col. 10, lines 35-45)," Applicant submits col. 10, lines 43-45, merely states "The CMM block is operable to update the per-flow cell emission count, as the cells are scheduled for emission upon winning arbitration." Applicant submits such teaching fails to disclose "counting every one of the leaves of the multicast tree." Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 6. Thus, Applicant submits claim 6 is in condition for allowance.

Regarding claim 7, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 7. As an example, Applicant submits the cited portions of the cited reference fail to disclose "wherein the step of adjusting the copy count is performed based on reaching a leaf to be processed pointer that points to itself." While the Examiner cites "(see Figs. 4-6, col. 10, lines 62-67, col. 11, lines 1-7, and col. 12, lines 2-14)," Applicant notes the Examiner cited "col. 10, lines 43-45" with respect to claim 3, which relates to "a copy count," yet Applicant notes none of the portions the Examiner cites with respect to claim 7 appear to relate to the subject matter upon which the Examiner relied with respect to claim 3. Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 7. Thus, Applicant submits claim 7 is in condition for allowance.

Regarding claim 8, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 8. As an example, Applicant submits the cited portions of the cited reference fail to disclose "adding the data to a queue as enqueued data." While Applicant notes the Examiner cites "(see Fig. 3, col. 8, lines 25-26)," Applicant notes such portions states, "A cell arrival interface 348 associated with the CMM block 332 operates as an entry point for incoming cells." Applicant submits such teaching fails to disclose "adding the data to a queue as enqueued data."

As another example, Applicant submits the cited portions of the cited reference fail to disclose "determining that all of the enqueued data for a particular destination of the multicast destinations have been transmitted." While the Examiner cites "(see Figs. 3 and 4, col. 9, lines 42-66)," Applicant sees no teaching of "determining that all of the enqueued data for a particular destination of the multicast destinations have been transmitted" or even "...have been transmitted" in such portion. Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 8. Thus, Applicant submits claim 8 is in condition for allowance.

Regarding claim 9, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 9. As an example, Applicant submits the cited portions of the cited reference fail to disclose "storing queue context information and data context information pertaining to the data" or even "storing queue context information...." While the Examiner cites "(see Fig. 3, element 334, col. 8, lines 19-33)," Applicant submits "context memory 334" appears not to disclose "storing queue context information and data context information pertaining to the data." Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 9. Thus, Applicant submits claim 9 is in condition for allowance.

Regarding claim 10, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 10. As an example, Applicant submits the cited portions of the cited reference fail to disclose "when the number of destinations to which the output data has been transmitted indicates that the output data has been transmitted to the number of destinations intended to receive the output data, concluding the queuing of the output data." While the Examiner cites "(see Figs. 3-5, col. 11, lines 29-57)," Applicant submits the cited portion does not appear to disclose "concluding the queuing of the output data" subject to the context of the remainder of claim 10. Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 10. Thus, Applicant submits claim 10 is in condition for allowance.

Regarding claim 11, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 11. As an example, Applicant submits the cited portions of the cited reference fail to disclose "updating the queue context information for a root connection." While the Examiner cites "(see Fig. 3, col. 10, lines 14-24)," Applicant notes the Examiner cited "(see Fig. 3, element 334, col. 8, lines 19-33)," with respect to "storing queue context information and data context information pertaining to the data" in claim 9. As Applicant noted with respect to claim 9, Applicant submits "context memory 334" appears not to disclose such feature. Thus, Applicant submits the

portion of the cited reference cited with respect to claim 11 does not appear to be consistent with the portion cited with respect to claim 9 as to the subject matter of claim 11. Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 11. Thus, Applicant submits claim 11 is in condition for allowance.

Regarding claim 12, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 12. As an example, Applicant submits the cited portions of the cited reference fail to disclose "obtaining a data element pointer and a leaf to be processed pointer from a to-do list, wherein the step of determining which of the data to transmit as the output data is based on the data element pointer and the leaf to be processed pointer." While the Examiner cites "(see Figs. 3-6, col. 11, lines 29-67, and col. 12, lines 1-14)," Applicant does not see teaching as to "obtaining a data element pointer and a leaf to be processed pointer from a to-do list." Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 12. Thus, Applicant submits claim 12 is in condition for allowance.

Regarding claim 13, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 13. As an example, Applicant submits the cited portions of the cited reference fail to disclose "updating a number of leaves counter." Applicant submits the Examiner has not identified any element as allegedly disclosing "a number of leaves counter," so Applicant does not know what the Examiner alleges to teach "updating a number of leaves counter." Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 13. Thus, Applicant submits claim 13 is in condition for allowance.

Regarding claim 14, Applicant submits the cited portions of the cited reference fail to disclose the subject matter of claim 14. As an example, Applicant submits the cited portions of the cited reference fail to disclose "adjusting a copy count, wherein the copy count is used to determine the number of destinations to which the output data has been transmitted." Applicant submits the Examiner has not identified any element as allegedly disclosing "a copy count," so Applicant does not know what the Examiner alleges to teach "adjusting a copy count...." Applicant submits the Examiner has not made a *prima facie* showing of anticipation with respect to the subject matter of claim 14. Thus, Applicant submits claim 14 is in condition for allowance.

The Examiner states, "Claim 20 is rejected under 35 U.S.C. §103(a) as being unpatentable over US Patent No.7,280,542 [to Hassan-Ali et al.]... in view of US Patent No. 6,621,825 [to Walsh et

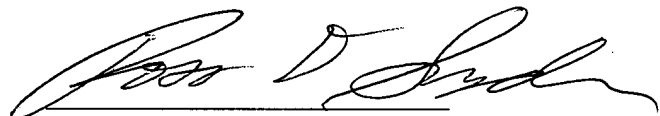
al.].” However, Applicant notes the Examiner alleges teachings as to the subject matter of claim 15, but not to claim 20. Then, the Examiner concludes “Therefore, it would have been obvious to combine Walsh and Hassan-Ali to obtain the invention as specified in claim 16.” However, since the Examiner purports to have rejected claims 1-20 and does not appear to have made a *prima facie* showing of anticipation with respect to the subject matter of claim 15, Applicant understands the rejection to be directed to claim 15 and responds accordingly below. Applicant respectfully disagrees.

Regarding claim 15, Applicant has presented arguments for the allowability of claims from which claim 15 depends. Thus, Applicant submits claim 15 is also in condition for allowance.

In conclusion, Applicant has overcome all of the Office’s rejections, and early notice of allowance to this effect is earnestly solicited. If, for any reason, the Office is unable to allow the Application on the next Office Action, and believes a telephone interview would be helpful, the Examiner is respectfully requested to contact the undersigned attorney.

Respectfully submitted,

09/26/2008
Date



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